

PROTECTION CIRCUIT AND METHOD FOR FLOATING POWER TRANSFER DEVICE

Abstract of the Disclosure

A protection circuit and method are provided for a floating power transfer device having one or more switches for controlling charging of a reservoir capacitor across which a load is applied when in use. The protection circuit includes a control circuit, a fault detection circuit and a precharge driver circuit. The control circuit at least partially controls switching of the at least one switch, while the fault detection circuit detects when a fault in the floating power transfer device or the load occurs and sends a fault detect signal to the control circuit in response thereto. The precharge driver circuit, which is enabled by the control circuit responsive to receipt of the fault detect signal, attempts to precharge the reservoir capacitor to a voltage level sufficient for switching of the one or more switches to proceed without damaging the switches.